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**THE
MINNESOTA
DEPARTMENT
OF
PUBLIC
SERVICE**

BIENNIAL
REPORT

1987-1988

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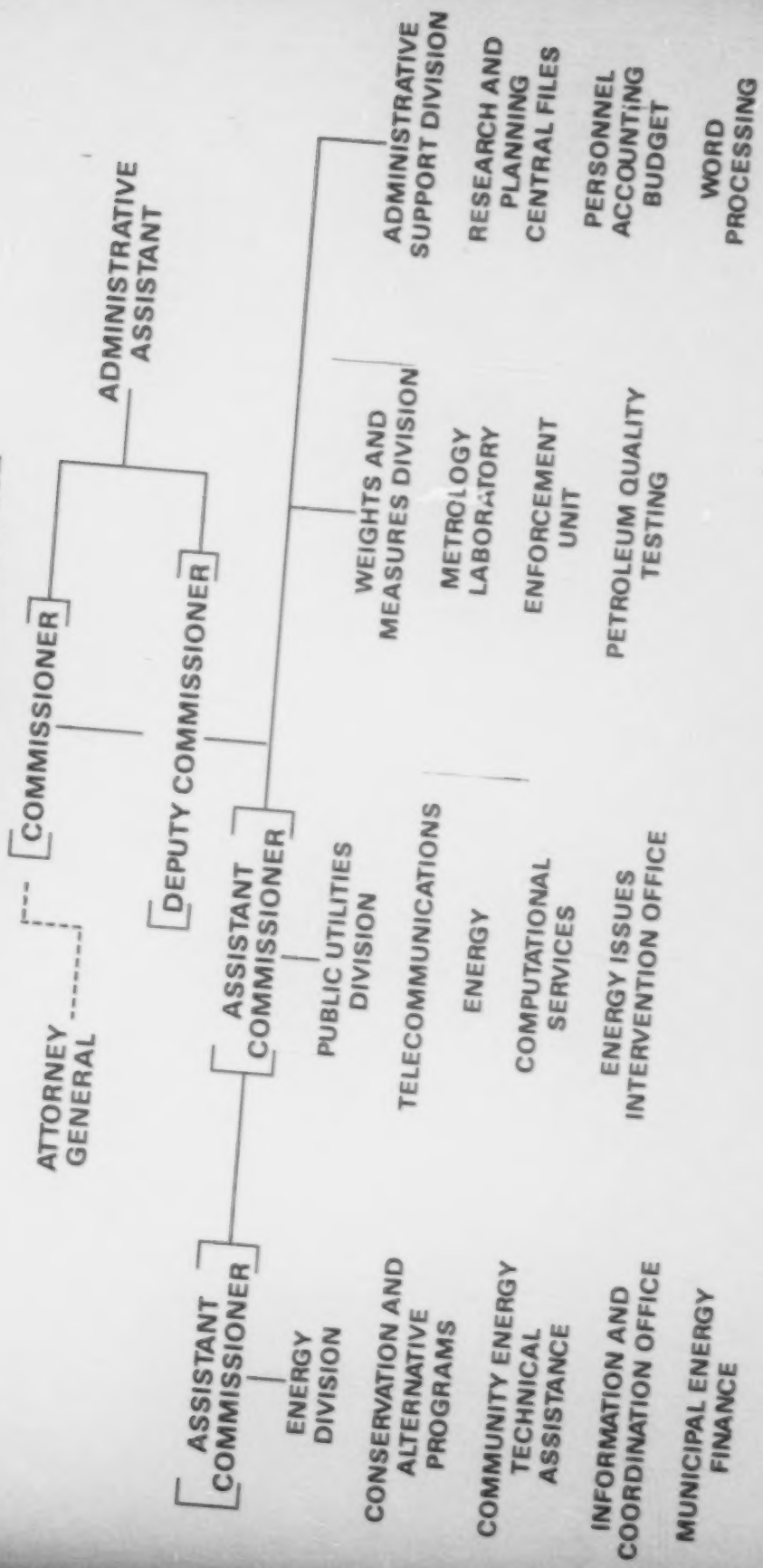


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REGULATORY HISTORY

Date Effective

March 1871	Railroad Commission established.
1879	First telephone placed in service in Minnesota.
January 1895	State Scale Department created; Railroad and Warehouse Commission created.
May 1911	Weights and Measures regulation established.
January 1, 1915	Minnesota telephone utilities placed under state regulation.
1918-1920	Federal Post Office took over war-time operations of the nation's telephone companies
January 1919	Study reveals 2,058 telephone companies operating in Minnesota.
July 1921	Uniform system of accounts required for each telephone company.
January 1960	Survey shows a total of 1,076 telephone companies operating in Minnesota.
January 1, 1968	Railroad and Warehouse Commission renamed Public Service Commission; Department of Public Service established as an umbrella agency to provide administrative and enforcement services to the commission.
January 1, 1975	State regulatory authority over gas and electric utilities became effective. Public Service Commission expanded to five members.
April 8, 1978	Electric cooperatives exempted from state rate regulation.
January 5, 1979	Telephone cooperatives receive reduced level of state rate regulation.
December 28, 1979	Commission passes final cold weather rule prohibiting utility disconnects during cold weather months.
July 1, 1980	Administrative separation of Department of Public Service and Public Utilities Commission into two separate state agencies.
May 20, 1981	Gas distribution utilities serving fewer than 650 customers exempted from state rate regulation upon petition of city councils.
May 22, 1981	Telephone companies serving fewer than 2,500 subscribers receive reduced level of state rate regulation.
May 1, 1982	Minnesota Statutes amended to eliminate rates under bond and provide for interim rates and a 10-month time limit set on final rate case decisions by the Public Utilities Commission.
July 1, 1983	Minnesota law established Energy Issues Intervention Office (EIIO). Also the function of issuing certificates of need for large energy facilities transferred from Department of Energy, Planning and Development to the PUC.
April 24, 1984	Telephone companies serving fewer than 15,000 subscribers received reduced levels of state rate regulation.
April 25, 1984	Radio common carriers exempted from state regulation.
June 29, 1985	Cellular mobile radio carriers exempted from state regulation.
August 1, 1985	General Telephone Company receives reduced level of regulation when the language of the statutes was changed to include foreign corporations.
December 12, 1986	Federal Regulatory Commission (FERC) issues Order No. 436 setting regulatory framework for nondiscriminatory transportation in the natural gas industry.
June 6, 1986	FERC issues Order No. 451 which substantially deregulates old gas supplies.
July 1, 1986	Minnesota Statutes amended allowing gas utilities to set flexible rates.
August 1, 1986	Telephone companies serving fewer than 30,000 subscribers receive reduced level of regulation. And legislation passed allowing telephone companies subject to competition to change services and rates faster in order to better compete.
August 7, 1987	FERC issues Order No. 500 to supplement Order No. 436. This sets temporary policy on treatment of take-or-pay expenses.
June 1, 1988	FERC issues Order No. 497 setting certain standards of conduct for transactions between interstate natural gas pipelines and their marketing affiliates.

ABOUT THE DEPARTMENT

The Minnesota Department of Public Service is a regulatory agency with statutory responsibilities relating to telephone, gas and electric utilities, energy policy, and weights and measures in Minnesota. An arm of the state's Executive branch, the Department acts as public advocate for the state in the regulation of public utilities. The Department is responsible for investigating the reasonableness of rates charged by utilities and also has authority to assure compliance with and enforcement of all orders of the Minnesota Public Utilities Commission (PUC). In addition, it is the investigative and enforcement agency for all state weights and measures statutes.

In the utility sphere, the Department's regulatory responsibilities include investigating utility revenues and rate matters, monitoring rate adjustment clauses, investigating utility acquisitions and reviewing proposed issuances of securities by regulated utilities. The Department also undertakes special investigations and studies relating to utility rates, service and public issues. Additionally, through its Energy Issues Intervention Office (EIIO), the Department has the responsibility of protecting Minnesota's energy interests before federal bodies, including the Federal Energy Regulatory Commission (FERC), Congress, the Department of Energy (DOE), the Office of Fossil Energy (formerly the Economic Regulatory Administration) and the Nuclear Regulatory Commission. EIIO staff investigates, presents testimony, and provides information to Congress regarding the impact of various national energy policies on Minnesota's residents.

In contested cases, the Department serves as public advocate for all Minnesota ratepayers, identifying issues and presenting various alternatives on

financial, rate and service matters. The Department's recommendations are presented in sworn testimony to the state's Public Utilities Commission, the body appointed by the Governor which sets general regulatory policy and utility rates throughout Minnesota. The Department's recommendations reflect positions which, in its opinion, are in the best interest of the public.

The Department's Energy Division provides energy-related and technical information to a wide range of energy users. The Division is also charged with encouraging improvements in energy efficiency and development of alternative energy resources.

The Department's Weights and Measures division is responsible for examining and evaluating all weighing and measuring devices in commercial service in the state to protect Minnesota citizens from false weighing or measuring transactions. The division was established in 1911 as successor to the state Scale Department, one of the oldest agencies in state government, established in 1895. The Weights and Measures division is divided into two major functional units and is responsible for the accuracy verification of every weight, measure and weighing or measuring device used in the state. Its responsibility also extends to securing accurate weight, measure or count in all commercial transactions.

All together, the Department's staff includes experts in weights, measures, statistics, econometrics, economics, accounting, engineering and specialists in related utility and regulatory fields.

The Department commissioner is appointed by the Governor. As administrative head, the commissioner enforces orders and directives of the Public Utilities Commission and develops the Department's policies and procedures.

KEEPING THE PUBLIC INFORMED

Department Information and Research

A conspicuous part of the Department's duties is keeping both the public and industry informed of matters under the jurisdiction of the Department and the PUC. This effort is divided between the Administrative and Energy divisions.

Within the Energy Division's Energy Information Office, two energy specialists backed by one clerical person, staff a telephone service, perform radio and television interviews, and act as technical advisors for a number of publications. Two information officers produce a variety of guides, brochures and fact sheets for residential and commercial energy users. They maintain media contact through news releases and radio spots, and provide editorial and production assistance to other Energy Division units in preparing informational material. The office also maintains a coordinating library service for the entire division, complete with on-line literature search capabilities.

In Fiscal Year 1988, the staff handled 10,814 telephone calls for information, distributed 137,366 pieces of literature, made 13,275 contacts with the public through its information booth at trade shows and fairs, and responded to 470 requests for information from the energy library.

Dealing with information of another sort, the Administrative Division's

Research and Information section is the repository for all regulatory historical records (e.g., commission orders, financial reports, etc.) and serves as the document control office for the Utilities Division. It receives and distributes petitions, responds to questions regarding new petitions and to requests for copies. It monitors and reports on the status of all open cases; it is responsible for serving all legal documents on parties and generally controls the flow of all documents going in and out of the Utilities Division. Copies of all these documents are on file here, as are utility financial reports and tariff books. All are available for public review. Because of the great demand for regulatory orders and documents, the Department is required to assess a charge for copies of official materials. Certified copies are priced at \$2 for each document plus a flat charge of 25 cents per page for duplication. Other duplicates are priced on a variable scale set by the Documents section based on the size, number of pages and difficulty of preparation. Requests for duplicates and certified copies of regulatory documents should be made through the Research and Information section, Department of Public Service, 790 American Center Building, St. Paul, MN 55101, (612) 296-6913. Copies of utility service area maps are also available on order.

PUBLIC SERVICE IN 1987-1988

A Sampler of Department Activities

The Department Pushes Least-Cost Planning

Over the biennium, the Department chaired a state agency task force looking into regulations that would promote least-cost planning and energy conservation in Minnesota. Least-cost planning requires consideration of environmental costs, and would compel utilities (through regulation) to look at all alternatives in designing strategies to meet future energy demands. Even as power plant emissions are increasingly seen as major contributors to acid rain and global warming, demand for electricity in Minnesota continues to grow. Demand is expected to exceed current supplies in the next ten years. In response to the task force's recommendation that least-cost planning be initiated, the PUC, in 1989, will begin a summary investigation into the effectiveness of incentives and disincentives in the current regulatory process in promoting energy conservation. The PUC will then initiate rulemaking on integrated utility planning. The proposed rulemaking will address whether utilities should be required to submit actual plans that estimate future electric demands and explain how those demands are going to be met, either through new generating capacity or conservation.

\$20 Million in Energy Loans Dispensed

Over the biennium, municipal loans were provided to over 120 public school districts, cities and counties. Nearly \$20 million in loans were distributed through the program, resulting in the completion of retrofits in over 400 buildings. Most loans issued went to small, rural school districts, cities and counties with limited capital budgets.

Minnesota Power's Ratepayers Protected

Over the past two years, the Department worked to support Minnesota Power Company's continuing efforts to stabilize its financial future in the wake of the slowdown of the state's taconite industry. During this two-year period, Minnesota Power negotiated contract amendments with financially hard-hit taconite customers who were unable to purchase the volumes of power they had agreed to. Terms of the original contracts were extended in exchange for take-or-pay (fees paid by power users to producers during times of reduced demand) reductions. The Department submitted to the PUC amendments which would help stabilize expected revenues from the company's taconite customers, thereby providing increased protection for Minnesota Power's other ratepayers. The Department contended that the amendments would make it more likely that the taconite industry would continue to play a major role in northeastern Minnesota's economy. The amendments were subsequently approved by the Commission.

Bell Telephone Customers' Bills Reduced

In February 1987, the Department of Public Service and the Public Utilities Commission pursued a complicated investigation into the earnings level of Northwestern Bell Telephone Company. As a consequence, Northwestern Bell was compelled to reduce its intrastate revenue requirement by \$24.5 million per year. This resulted in a monthly decline in the average ratepayer's bill of about \$1.28, and a drop of around \$.50 for local residential users.

FERC Cautioned

Early in 1988, the FERC proposed new rules designed to increase competition among electrical generating companies by, in part, reducing regulations over them. Concerned that Minnesota utility customers could be adversely affected, the Department presented cautionary recommendations to the FERC and the U.S. Senate Subcommittee on Energy and Natural Resources which was holding hearings on the matter. The Department cautioned that: (1) efforts to increase competition in generation must include ensuring power producers with nondiscriminatory access to a utility's transmission facilities; (2) conservation considerations and other non-price criteria must be incorporated into a bidding process, and (3) states must have the discretion to develop regulatory policies such as a competitive bidding process or avoided-cost determination, that best meets the needs of the state.

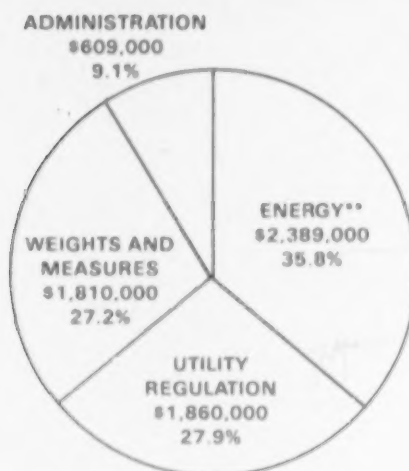
Local Energy Programs Launched

Local programs initiated by the Energy Division over the last two years include: "Seniors Helping Seniors," a home weatherization project; home energy check-ups; small business energy consultations; low-interest business energy loans; energy analyses for resort owners; free car care clinics through the ATVs; a rural carpool program; and the introduction of energy education materials into the public school curriculum.

STATISTICAL DATA

THE DPS OPERATING BUDGET

Where The Money Comes from, Where It Goes



DEPARTMENT OPERATING COSTS BY PROGRAM

PROGRAM	FY 1987	FY 1988
Utility Regulation		
General Fund	\$ 1,657,000	\$ 1,752,000
Revolving Fund	136,000	108,000
Weights and Measures		
General Fund	\$ 1,712,000	\$ 1,810,000
Administration		
General Fund	\$ 541,000	\$ 609,000
*Energy		
General Fund	\$ 965,000	\$ 1,860,000
Revolving Fund	0	56,000
Federal Fund	264,000	473,000
Federal Pass-Through Money	2,628,000	11,427,000
Total Operating Costs	\$ 5,275,000	\$ 6,668,000
Federal Pass-Through Money	\$ 2,628,000	\$11,427,000
Total All Funds	\$ 7,903,000	\$18,095,000

* Represents five months of Energy Division expenditures following the transfer of the Division from the Department of Energy and Economic Development to the Department of Public Service.

** Does not include federal pass-through money

MINNESOTA'S REGULATED TELEPHONE UTILITIES

Composite Statistics* — 4 Regulated Companies

	AMOUNTS
Plant (Intrastate Only)	
Plant In Service	3,116,351,725
Construction Work in Progress	77,079,535
Plant Acquisition Adjustment	6,156
Plant Held for Future Use	
Materials and Supplies	13,957,394
Gross Plant Investment (Subtotal)	3,207,394,810
Less:	
Depreciation and Amortization Reserves	1,063,493,951
Contributions in Aid of Construction	
Net Book Costs	2,143,900,859
Revenues and Expenses	
Operating Revenues	1,114,473,720
Depreciation and Amortization Expenses	235,590,915
Income Taxes	89,461,243
Other Operating Expenses	477,349,221
Total Operating Expenses	904,769,125
Net Operating Income	209,704,595
Other Income	2,678,509
Other Deductions	11,335,464
Net Income	201,047,640
Customers (Numerical Average, Not Dollars)	
Residential — Yearly Average	1,389,340
Business — Yearly Average	176,018
Others — Yearly Average	35,223
Total Yearly Average	1,600,581
Lines in Service (Including Equivalent)	
Residential Lines	1,410,304
Business Lines	508,697
Total Lines	1,919,001
Total Number of Phone Calls Per Year	
Local	5,651,920,562
Intrastate Toll	170,993,027
Interstate Toll	42,756,415
Other Statistics	
Average Gross Plant Investment Per Customer	1,789

*December 1987 year end, Minnesota jurisdictional only.

**Company specific information is available upon request.

ALL OTHER MINNESOTA TELEPHONE UTILITIES

	AMOUNTS
Plant (Intrastate Only)	
Plant In Service	424,257,148
Construction Work in Progress	14,279,652
Plant Acquisition Adjustment	963,473
Plant Held for Future Use	13,150
Materials and Supplies	3,286,287
Gross Plant Investment (Subtotal)	434,232,020
Less:	
Depreciation and Amortization Reserves	180,496,424
Contributions in Aid of Construction	
Net Book Costs	253,735,596
Revenues and Expenses	
Operating Revenues	132,291,048
Depreciation and Amortization Expenses	24,490,719
Income Taxes	11,694,138
Other Taxes	9,442,358
Other Operating Expenses	50,338,300
Total Operating Expenses	95,965,515
Net Operating Income	36,325,533
Other Income	8,519,834
Other Deductions	12,149,462
Net Income	32,695,905
Customers (Numerical Average, Not Dollars)	
Residential — Yearly Average	204,789
Business — Yearly Average	31,751
Others — Yearly Average	3,384
Total Yearly Average	239,924
Lines in Service (Including Equivalent)	
Residential Lines	202,198
Business Lines	36,578
Total Lines	238,776
Total Number of Phone Calls Per Year	
Local	1,096,988,881
Intrastate Toll	40,092,851
Interstate Toll	30,086,059
Other Statistics	
Total of All Residential Monthly Bills This Year	21,296,781
Average Gross Plant Investment Per Customer	1,824

*December 1987 year end, Minnesota jurisdictional only.

**Company specific information is available upon request.

MINNESOTA'S REGULATED NATURAL GAS UTILITIES

Composite Statistics — 9 Companies

	TOTAL
Total Plant	
Plant In Service	830,156,000
Construction Work in Progress	4,805,000
Plant Acquisition Adjustment	18,169,000
Plant Held for Future Use	2,439,000
Materials and Supplies	30,487,000
Less:	
Depreciation and Amortization Reserves	318,119,000
Contributions in Aid of Construction	55,000
Net Book Costs	567,881,000
Revenues and Expenses	
Operating Revenues	757,464,000
Depreciation and Amortization Expenses	32,548,000
Income Taxes	16,394,000
Other Taxes	35,651,000
Other Operating Expenses	631,467,000
Total Operating Expenses	716,060,000
Net Operating Income	41,404,000
Other Income	40,000
Other Deductions	3,854,000
Net Income	37,590,000
Customers (Numerical Average, Not Dollars)	
Residential — Yearly Average	818,520
Commercial — Yearly Average	81,550
Industrial — Yearly Average	1,365
Others — Yearly Average	3,018
Total	904,453
Other Statistics	
Average Annual Residential Use — MCF	98.14
Average Residential Cost per MCF (\$)	4.50
Average Residential Monthly Bill	37.80
Average Gross Plant Investment per Customer (\$)	836.78

*December 1987 year end, Minnesota jurisdictional only.

**Company specific information is available upon request.

MINNESOTA'S REGULATED ELECTRIC UTILITIES

Composite Statistics* — 6 Companies

	TOTAL
Total Plant	
Plant In Service	5,308,066,000
Construction Work in Progress	360,350,000
Plant Acquisition Adjustment	3,502,000
Plant Held for Future Use	6,625,000
Materials and Supplies	121,041,000
Less:	
Depreciation and Amortization Reserves	1,845,626,000
Contributions in Aid of Construction	0
Net Book Costs	3,953,958,000
Revenues and Expenses	
Operating Revenues	1,751,284,000
Depreciation and Amortization Expenses	162,567,000
Income Taxes	90,173,000
Other Taxes	166,649,000
Other Operating Expenses	1,062,991,000
Total Operating Expenses	1,482,380,000
Net Operating Income	268,904,000
Other Income	39,474,000
Other Deductions	39,493,000
Net Income	268,885,000
Customers (Numerical Average, Not Dollars)	
Residential — Yearly Average	1,040,614
Commercial — Yearly Average	123,696
Industrial — Yearly Average	5,987
Others — Yearly Average	5,581
Total	1,175,878
Other Statistics	
Average Annual Residential Use — KWH	7,769
Average Residential Cost per KWH (¢)	6.75
Average Residential Monthly Bill	44.68
Average Gross Plant Investment per Customer (\$)	4,185.90

*December 1987 year end, Minnesota jurisdictional only.

**Company specific information is available upon request.

UTILITY CUSTOMER DISTRIBUTIONS AND REVENUES

TELEPHONE CUSTOMER DISTRIBUTION

	Minnesota Customer Served	Minnesota Operating Revenue	Percent of Telephone Revenue	Plant In Service
Central	67,704	35,477,561	2.84	100,309,947
Continental	90,242	57,983,495	4.65	183,071,947
US West				
Communications	1,350,617	970,913,786	77.88	2,687,888,859
United	92,018	50,098,878	4.02	145,080,972
Subtotal	1,600,581	1,114,473,720	89.39	3,116,351,725
93 Other Local Exchange				
Carriers	239,924	132,291,048	10.61	424,257,148
Total	1,840,505	1,246,764,768	100.00	3,540,608,873

MINNESOTA'S REGULATED ELECTRIC UTILITIES COMPANY STATISTICS

Name of Utility	Minnesota Customers Served	Minnesota Operating Revenues	Percent of Electric Revenues	Utility Plant In Service
Bigfork Valley Electric	288	397,000	.02	195,000
Dakota Electric Association	48,889	53,510,000	3.06	76,204,000
Interstate Power	37,974	36,716,000	2.10	126,222,000
Minnesota Power	103,602	337,103,000	19.25	963,083,000
Northern States Power	930,946	1,239,266,000	70.76	3,846,192,000
Otter Tail Company	54,179	84,292,000	4.81	296,170,000
Total	1,175,878	1,751,284,000	100.00	5,308,066,000

December 1987 year end — Minnesota jurisdiction only.

**MINNESOTA'S REGULATED NATURAL GAS UTILITIES
COMPANY STATISTICS**

Name of Utility	Minnesota Customers Served	Minnesota Operating Revenues	Percent of Natural Gas Revenues	Plant In Service
Great Plains Natural Gas	15,292	13,969,000	1.84	13,935,000
Northern Minnesota Utilities	21,280	29,768,000	3.93	23,488,000
Interstate Power	8,914	6,974,000	.92	5,270,000
Minnegasco, Inc.	455,339	371,605,000	49.06	400,964,000
North Central Public Service	57,362	32,937,000	4.35	39,335,000
Northern States Power	250,447	201,002,000	26.54	276,508,000
Peoples Natural Gas	93,905	100,024,000	13.20	69,116,000
Western Gas Utilities	1,914	1,185,000	.16	1,540,000
Total	904,453	757,464,000	100.00	830,156,000

December 1987 year end — Minnesota jurisdiction only.

THE DIVISIONS

THE UTILITIES DIVISION

The role of the Department of Public Service's Utilities Division is to protect the customers of regulated utilities from unfair rates or treatment that could result from the monopoly environment in which public utilities operate. The responsibilities of the Division extend to both the state and federal levels of regulation. For example, at the state level, whenever a regulated gas or electric or telephone utility applies for a new rate, the Utilities Division immediately steps in on behalf of the utility's customers. At the federal level, the Division takes its advocacy to Washington, D.C., intervening on behalf of the state's residents and businesses through the Division's Energy Issues Intervention Office (EIIO). The EIIO has the statutory responsibility of representing all consumers of electricity and natural gas in Minnesota, including households, businesses and government agencies.

The EIIO coordinates such interventions with the PUC, the Minnesota Attorney General's Office, the Environmental Quality Board, and other state agencies both within and outside Minnesota.

Using its accountants, statisticians, economists and other regulatory specialists, the Division investigates rate requests and other filings to determine their validity and reasonableness. It then presents its recommendations to the PUC or appropriate federal body. Often the Division will place before these regulators a number of alternatives to the filings under review. Throughout all these proceedings, the Division will take aggressive, public-oriented positions.

The Division also investigates and makes recommendations relating to rate and service matters, territorial conflicts, property acquisitions, affiliated interests and depreciation certifications.

Besides these major activities, there are other duties the Division performs which provide additional day-to-day protection for utility ratepayers. These include:

- Maintaining utility rate and tariff books.
- Monitoring the quality and adequacy of utility service.
- Monitoring utility accounting procedures and systems.
- Analyzing all securities issued by gas and electric companies.
- Monitoring the financial stability of utilities.
- Investigating utility compliance with filed tariffs.
- Enforcing statutes, regulatory rules and policies.
- Promoting economically and energy efficient rate designs.
- Investigating the economic impact of changes in utility service area boundaries.
- Investigating utility investments and expenses for ratemaking purposes.
- Reviewing utility statistical reports and documents.
- Monitoring interstate transactions conducted by public utilities serving Minnesota residents.
- Identifying, researching and analyzing energy issues that can significantly affect Minnesota's energy costs.
- Monitoring and participating in federal energy legislative activities.
- Evaluating utility depreciation rates and schedules.
- Supervising and conducting elections on rate regulation as requested by members of electric or telephone cooperatives.
- Monitoring utility compliance with state statutes and rules governing cogeneration and small power production.
- Disseminating information to the public and other government agencies.

These many and varied activities are carried out through the Utilities Division's four administrative units: Telecommunications, Energy, the Energy Issues Intervention Office and Computational Services.

Telephone Unit

This unit is responsible for reviewing the filings of 97 local exchange carriers and over 30 long distance carriers. In 1988, the Unit's staff of seven rate analysts investigated over 400 petitions from Minnesota telephone companies. Many of these investigations required the Unit to submit expert testimony to and prepare studies for the Public Utilities Commission on issues ranging from rate design, to economic costs, to how to deal with the introduction of new technologies.

On August 1, 1987, state law allowed local telephone companies with fewer than 30,000 customers to make changes in their service without prior Commission approval. (The regulatory agencies, however, retained the authority to conduct investigations and to order changes.) Ninety-three local companies fall into this category. Together, however,

these companies serve only 13 percent of Minnesota telephone customers. By far, the largest of the state's telephone companies is Northwestern Bell Telephone Company. Alone it serves 73 percent of all telephone customers and collects 78 percent of all revenues generated by local telephone companies. Indeed, Northwestern Bell, along with the next three largest companies — Central Telephone, Continental and United Telephone — serve 86 percent of the customers and collect 89 percent of telephone revenue for local service. Because of their enormous impact on numbers of customers and total revenues collected, the four are required to obtain prior Commission approval before implementing changes in their rates or service.

Telecommunications: Short History

- The first telephone was placed in service in Minnesota in 1879. By the turn of the century, Minnesotans were served by more than 1,000 telephone companies in the state.

A significant number of the companies were one-family operations or local cooperatives serving fewer than 25 subscribers. Many did not provide exchange service, but rented switching facilities from other companies in order to connect with the telephone network. The extent of calling was usually limited to subscribers of the serving company. Customers often maintained their own lines and telephones.

Telephone service in those early years meant sharing the line with up to 20 or more subscribers. Placing a call often entailed a long wait for an operator and considerable line noise and cross talk.

The era of unregulated competition in Minnesota's telephone industry ended with enactment of Chapter 152, Laws of 1915, which ordered state jurisdictions over a maze of overlapping, duplicating telephone services that featured several

telephone companies serving the same town, including the Twin Cities and Duluth.

When the federal Post Office Department took over wartime operations of the nation's telephone companies in 1918 and 1919, Minnesota listed 2,058 operating telephone companies. In 1920, when regulatory jurisdiction was returned to Minnesota's Board of Railroad and Warehouse Commissioners, a concentrated effort was made to consolidate telephone companies and bring uniformity to telephone rates and services.

Most duplicating services were eliminated with assignment of an exclusive service area to each telephone company. But consolidation efforts were less successful. State statistics as late as 1960 still listed 1,076 telephone companies operating in the state.

All Minnesota's telephone companies operated in a totally regulated environment until 1979 when the level of regulation was reduced for 24 telephone cooperatives. These companies were no longer required to seek advance approval

Energy Issues Intervention Office (EIIO)

The Energy Issues Intervention Office (EIIO) was established by the Minnesota Legislature in 1983. It represents and advocates Minnesota's energy interests before federal bodies such as the Federal Energy Regulatory Commission (FERC), Congress, Department of Energy (DOE), Nuclear Regulatory Commission and the Office of Fossil Energy (formerly The Economic Regulatory Administration) of the U.S. DOE. The EIIO is responsible for creating and developing state energy policy on national and international energy issues that significantly affect Minnesota residents and businesses. For instance, the EIIO has presented analyses to and prepared testimony for the FERC in several natural gas rate cases and rulemakings focusing on such issues as open transportation for natural gas pipelines, gas price deregulation and oversight of transactions involving corporate affiliates. EIIO involvement in these matters has been essential because the FERC decisions over gas pipeline rate cases determine approximately

80 percent of Minnesota's ultimate natural gas costs.

The EIIO also presents expert testimony in response to emerging electric issues such as the FERC's recent proposal to substantially reduce regulations over wholesale electric transactions. For the past several years, the FERC has advocated less regulation over both wholesale natural gas and electric transactions. It has, for instance, pushed for nondiscriminatory transportation and price deregulation in the natural gas industry and reduced federal oversight of electric generation. This market-oriented philosophy within the FERC has shifted more of the regulatory burden to the state. It, therefore, has become imperative that Minnesota continue to vigorously represent itself in Washington and participate in the development of national energy policies.

Overall, for 1988, EIIO staff presented testimony and commentary in 23 cases before the FERC and it expects the FERC to consider many more issues in 1989.

Of A Rapidly Changing Industry

of the Commission before changing rates. But they did remain subject to the other requirements of regulation. In 1981, regulation was reduced for an additional 56 small telephone companies serving fewer than 2,500 subscribers. Rates of small companies, however, remained subject to review and change by the Commission if they were found to be unreasonable. The exemption was extended to an additional 18 companies serving fewer than 15,000 subscribers in 1984. By 1987 only four companies remained under full state rate regulation. These four, however, serve 86 percent of Minnesota's telephone subscribers.

Technological changes have advanced telephone service from battery operated telephones, manual switchboards and mechanical switches to digital central offices with instantaneous push-button calling allowing access to nearly any spot in the world via fiber optics cable, microwave or satellite.

Decisions of the courts, particularly the court-ordered breakup of AT&T and the Bell system in 1984, and directives from the Federal Communications

Commission have injected new competition into telecommunications, especially in the sale of equipment and long distance services. While the number of telephone companies offering local exchange service has actually declined slightly because of mergers and acquisitions, a new era of unregulated competition has increased the number of companies offering long distance and ancillary telephone services in the state. Numerous companies are now authorized by the Public Utilities Commission to provide long distance services within the state. The PUC has also authorized the resale of regulated services, significantly increasing the range of customer choices. In addition, Minnesota was the first state to authorize customer-owned public coin telephones to be connected to the telephone network. These changes in the structure of the telecommunications industry in Minnesota and the expected further expansion of competition into new areas of communications services will continue to bring changes to the regulatory process.

Energy Unit

The Energy Unit is responsible for the regulatory review of eight investor-owned gas utilities and five investor-owned electric utilities and one cooperative electric association. While Minnesota also has 53 cooperatives and 128 municipal companies that provide electric service to the state, these are not under state rate regulation.

The Energy Unit is, therefore, responsible for investigating petitions of only those regulated gas and electric companies (although it monitors all utilities' compliance with the PUC's cogeneration rules). Investigations involve such issues as rate design, cost of service contracts, company requests stemming from deregulation on the federal level (i.e., changes in levels of regulation in such areas as cogeneration and gas transportation) and affiliate transactions. The Unit also mediates and makes recommendations to the PUC in service boundary disputes that occur among the state's approximately 186 electric utilities. In 1988, the Unit's seven economists and statisticians investigated nearly 300 petitions, many of which required the development of expert testimony, studies and reports.

Computational Services Unit

The Computational Services Unit investigates petitions of all regulated gas, electric and telephone companies in the state that deal with the following issues:

- accounting treatments
- property acquisitions
- depreciation schedules
- security issuances
- rate of return (earning level) requests

In 1988, the Unit's staff of ten accountants and economists prepared testimony, studies and comments in response to over 200 petitions from gas, electric and telephone companies.

THE ENERGY DIVISION

The Energy Division administers or participates in a wide range of activities in an effort to assure the availability of energy at a reasonable cost and to help consumers improve energy efficiency and reduce energy costs.

The Division provides energy information and technical assistance to a

broad population of consumers. It administers the financing of conservation improvements for public facilities. In addition, it carries out other responsibilities to encourage cost-effective improvements in energy efficiency and long-term development of alternative energy resources.

The Division has four major responsibilities:

- It provides information and technical assistance to Minnesota schools, institutions, businesses, local governments and private citizens to improve energy efficiency and reduce energy costs.
- It supports the cost-effective development of alternative energy resources.
- It administers financing for efficiency improvements in a variety of tax-supported institutions (i.e., schools and local governments, etc.).
- It collects and analyzes statewide energy supply and use data and serves as a central clearinghouse for energy information.

The Energy Division currently operates in five major program areas:

Energy Information and Analysis —

Activities in this program area include the operation of the Energy Information Center; compiling and analyzing statewide energy supply and use data; preparing consumer publications (over 280,000 copies of them printed during the biennium) and public service announcements; testifying before the Public Utilities Commission on the Utility Conservation Improvement Program (CIP); reviewing electric utility long-term forecasts and supply plans, and providing statewide promotion of energy conservation programs.

Energy Efficiency Education —

The Division develops educational initiatives to improve energy efficiency in all sectors of Minnesota's economy. The Division provides a broad range of educational services to educators, building operators, professional energy service personnel and construction industry professionals. It also translates technical research into consumer information. The Division also helps a wide variety of constituents meet energy building codes, appliance efficiency, rental housing efficiency and insulation product standards.

Municipal Finance — The Division provides low-interest loans and federal grants to public schools, cities, counties and private, nonprofit schools and hospitals to improve structures and overall energy efficiency. Federal matching grants provide additional funds for retrofitting private, nonprofit schools and hospitals. State-funded cost-share audit grants are also provided to assess the technical and economic feasibility of projects proposed for financing.

Community Energy — The Division also attempts to strengthen Minnesota's economy by helping communities gain control over local energy costs. The Division provides technical assistance to communities to develop and implement local energy programs, and it provides competitive matching grants to support local efforts.

Alternative Energy — Activities in this program area involve the promotion of cost-effective and environmentally appropriate development of indigenous energy resources including wood, wind, agricultural residues, energy crops, solid waste and photovoltaics. The Division provides a wide range of technical and economic analysis, on-site engineering assistance, information and demonstration programs designed to promote appropriate development of Minnesota fuels.

THE WEIGHTS AND MEASURERS DIVISION: A Vital Cog Among the Wheels of Minnesota's Commerce

The Weights and Measures division of the Minnesota Department of Public Service is responsible for the accuracy of all transactions involving weight or measure. Consumers are apt to think that their pocketbooks are affected by weight and measure-related purchases only at the grocery store and gas station. In fact, such transactions are only a fraction of the purchases we make which are influenced by weighing and measuring devices. Indeed, the retail value of just about any consumer commodity you can imagine has probably been determined by a number of weighing and measuring transactions that item will have undergone during its trip from producer to distributor to wholesaler to retailer to you. An error in any of the weighing devices used along the way will necessarily affect such an item's ultimate price. And, if enough of those items are sold, that error could conceivably affect the economy itself. So it is imperative that the devices we use to calculate pounds, gallons, volume, inches, feet or whatever, be accurate and true — that we know that a pound is, indeed, a pound.

The heart of the Weights and Measures Division is its metrology laboratory. It is the statewide reference point for national uniformity in the measurement of mass, volume and length. The laboratory is certified by the National Bureau of Standards, which means that Minnesota standards are maintained and cross-checked and that the state metrologist reports regularly to the National Bureau. Any weight or measure calibrated in the Department's lab is directly traceable to the United States standards.

These standards are used as the reference point from which approximately 10,000 other weights and measures are calibrated each year. These other weights and measures are, in turn, used in: pharmacies to determine accurate quantities for prescriptions; in scientific and engineering laboratories to make precise measurements for education, industry and defense; in grain grading laboratories to determine the

quality of Minnesota's farm produce; in field installations, maintenance and testing of commercial weighing and measuring equipment used in grocery stores, gasoline stations, grain elevators and nearly all other types of businesses.

The laboratory calibrates all field standards for state weights and measures investigators, 350 registered repair services, various law enforcement agencies, and local units of government. Several hundred commercial and industrial operations also submit standards to the laboratory.

If the metrology lab is the heart of the Weights and Measures division, the enforcement unit is its eyes and ears. The unit is involved in a wide range of inspection, testing and enforcement activities. The 30 investigators assigned to the unit are responsible for the accuracy of every commercial weighing and measuring device in the state.

In the performance of these responsibilities the unit generates a substantial number of tests per year (see chart). An emphasis on routine, unannounced inspections has spurred owner-operators to adopt improved maintenance procedures which has, in turn, resulted in a dramatic increase in the proportion of devices found in compliance.

Two of the unit's most important activities are the accuracy verification and complaint investigation programs which allow investigators to check actual everyday use of devices. An accurate device is meaningless if it is not used accurately by its operator. These programs help control weighing errors by investigating consumer complaints and by checking prepackaged and measured commodities to determine package accuracy.

In order to test devices ranging from prescription balances to gas pumps to railroad track scales, the enforcement unit employs a wide variety of expensive, complicated and heavy test equipment. Field test measures range from a fraction of a pint to 500 gallons. Test weights

range from 1/1000 lb. through 30 lb. test sets for grocery scales, up to 1,000 and 10,000 lb. weights and 100,000 lb. test cars for truck and railroad scales. The test equipment is the only official means of regulating commercial weighing and measuring devices in the state.

State statutes provide these men and women with special police powers. They have the authority to enter any premises for the purpose of inspecting and testing weighing and measuring devices and weighted or measured commodities. This authority allows them to reject and prohibit commercial use of any device that is not in compliance with the technical and accuracy requirements prescribed by Department rules.

The enforcement unit also tests gasoline, fuel oil and kerosene to determine whether these products meet Minnesota standards for quality and purity. The program assures consumers of high quality petroleum products. The enforcement supervisor operates a program of voluntary registration for those who repair weighing and

measuring devices. Registrants are permitted to place new and repaired equipment into commercial service. Their work is also monitored by the enforcement investigators.

And finally, under new authority granted by the Minnesota legislature, the Division has assumed responsibility for posting public notices throughout the state to promote recycling of used motor oil and lead-acid batteries. The program, which started in December 1987, will reach every motor oil and battery dealer in Minnesota by 1990. Significantly, the Division expects its investigators to post these notices with every dealer in the state without any increase in staff.

In conjunction with the program, Division inspectors will also conduct a brief survey to collect recycling data and petroleum storage tank data for the Minnesota Pollution Control Agency. This data-sharing operation will help the MPCA identify and locate oil and battery dealers and underground storage tanks throughout the state.

**WEIGHTS AND MEASURES
INVESTIGATION/ENFORCEMENT ACTIVITY**

JANUARY THROUGH DECEMBER 1988

INSPECTIONS

	Number Total	Number Correct	Adjusted or Rejected	
			Number	Percent
Heavy Capacity Scales**	2,727	2,318	409	15.0
Livestock Scales	180	159	21	11.7
R.R Track Scales	85	73	12	14.1
Grain Hopper Scales	159	156	3	1.9
Law Enforcement Scales	277	275	2	0.7
Light Capacity Scales	9,762	9,040	722	7.4
Gasoline Pumps	27,796	25,517	2,279	8.2
Petroleum Meters	2,107	1,653	454*	22.0*
LPG Meters	1,132	623	509*	45.0*
Agricultural Chemical Meters	59	12	47*	80.0*
Petroleum Product Tests	21,400	21,272	128	0.6

CHECKWEIGHING

Packages Weighed	71,504	60,135	11,369	15.9
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LABORATORY CALIBRATIONS

Weights	7,107
R.R. Test Cars	10
Liquid Measures	247
Prescription Balances	23
Other Precision Balances	18

COMPLAINT INVESTIGATIONS

Complaints Investigated	700
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* The percentage shown is not the rejection rate. It is the percent of devices adjusted by the inspectors during the course of routine inspections. Adjustments are made because some devices cannot be taken out of service.

** Over 4,000 lbs capacity

Minnesota Statutes and Rules Relating to Regulation

Regulation of gas, electric and telephone utilities providing service in Minnesota and all Weights and Measures regulation in the state are carried out in accordance with laws enacted by the Minnesota Legislature and rules adopted by the Minnesota Public Utilities Commission, the Department of Public Service and the Office of Administrative Hearings.

— STATUTES —

Department of Public Service
Chapter 216A
Regulation of gas/electric utilities
Chapter 216B
Energy Division
Chapter 216C
Regulation of telephone utilities
Chapter 237
Weights and Measures
Chapter 239

— RULES —

Department of Public Service
Chapter 7600
Public Utilities Commission
Chapter 7800
Rules hearings
Contested Case Procedures
Chapter 1400

Copies of rules and statutes are available for review in the Department of Public Service Research/Information Center and may be purchased from the State Register and Public Documents Division, 117 University Avenue, St. Paul, 55155.

*Evidentiary and public hearings on utility rate matters may be conducted under rules of the Office of Administrative Hearings.

